

Knee Ottawa Ankle Rules

A knee x-ray series is required for knee injury patients with one of the following findings:	
1. Age 55 or older?	Yes or No
2. Isolated Tenderness of Patella (no bone tenderness of knee other than patella)?	Yes or No
3. Tenderness of head of fibula?	Yes or No
4. Inability to flex to 90°?	Yes or No
5. Inability to bear weight both immediately and in the emergency department for 4 steps (unable to transfer weight twice onto each lower limb regardless of limping)?	Yes or No

Special Tests

Structure to be assessed	Initial Test	Most Specific Test	Results and Indications
Medial collateral ligament (MCL)	Valgus stress full extension >5mm; check PCL and ACL	Valgus stress at 30° flexion > 5mm	Valgus stress at 30° flexion > 10 mm; check ACL
Lateral collateral ligament (LCL)	Varus stress full extension; check LCL, PCL, and ACL	Varus stress at 30° flexion isolates LCL	If laxity exists, LCL is injured; extent of injury dependent on excursion and end feel
Posterior cruciate ligament (PCL)	Posterior drawer	Posterior saf; quadriceps activation shows anterior translation of tibia	If laxity increases with posterior rotation, evaluate posterolateral corner
Anterior cruciate ligament (ACL)	Anterior drawer > 6 mm	Lachman test with empty end feel	Pivot shift; arthrometer difference >3mm side-to-side
Posterolateral corner	Posterior drawer increased at 30° and normal at 90°	Posterolateral drawer	Prone external rotation test increased at 30°, not at 90°; I both, check PCL
Meniscus	Meniscal Pathology Composite Score	History of catchin or locking, joint line tenderness, pain with forced hyperextension, pain with maximal knee passive flexion, and pain or audible click with McMurray	If 5/5 present, 92.3% of positive meniscal tear; 75% if 3/5 are positive

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Knee Questionnaire Indices.*

Indices	Indication	MCD	Comment
Western Ontario and McMaster Universities Osteoarthritis Index	Osteoarthritis Total Knee Arthroplasty?	Pain subscale: 22.39 Stiffness subscale: 29.12 PF subscale: 13.11 Other: 14	Strong for pain, stiffness, and physical function in osteoarthritis
International Knee Documentation Committee Questionnaire	Knee ligament injury	11.5	Not sensitive for sports-related function May overestimate the disability of an injury
Lysholm Knee Score	Ligament and meniscal injuries	10 points	Evidence for usefulness in inconclusive
Cincinnati Knee Rating System	Nonspecific knee	Pain 2.45 Swelling 2.86 Partial Giving way 2.82 Full giving way 2.30	Responsive for changes in pain, swelling, giving way, symptoms, sports function and overall rating
Knee Outcome Survey	Nonspecific knee	8.87	Responsive for functional limits for a variety of impairments
Lower Extremity Function Scale	All lower-extremity conditions	9	Useful with patients following arthroplasty and lower extremity conditions of musculoskeletal origin
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